

gaattcatctgtcgactgtaccacgggaggttccccggagaaggatcctgcagccccgagt 60
cccaggataaagcttggggttcattcctccttccttgatcactccacagtcctcaggct 120
tccccaatccaggggactcggcgccgggacgctgtatggacgacattttcactcagtgct 180
M D D I F T Q C 8
CGGAGGGCAACGCAGTCGCCCTGTGGCTGGACAAACACGAGAACGACCTCAAC 240
R E G N A V A V R L W L D N T E N D L N 28
CAGGGGACGATCATGGCTTCTCCCCCTTGCACTGGGCCCTGCCGAGAGGGCCGCTCTGCT 300
Q G D H G F S P L H W A C R E G R S A 48
GTGGTTGAGATGTTGATCATGCGGGGCGCACGGATCAATGTAAATGAACCGTGGGGATGAC 360
V V E M L I M R G A R I N V M N R G D D 68
ACCCCTGCATCTGGCAGCCAGTCATGGACACCCGTGATATTGTACAGAAAGCTATTGCAG 420
T P L H L A A S H G H R D I V Q K L L Q 88
TACAAGGCAGACATCAATGCAGTGAATGAACACGGAATGTGCCCTGCACTATGCCCTGT 480
Y K A D I N A V N E H G N V P L H Y A C 108
TTTTTGGGGCCAAGATCAAGTGGCAGAGGACCTGGTGGCAAAATGGGGCCCTTGTCAAGCATC 540
F W G Q D Q V A E D L V A N G A L V S I 128
TGTAACAAGTATGGAGAGATGCCCTGTGGACAAAGCCAAGGCACCCCTGAGAGAGCTTCTC 600

Fig. 1a (continued on page 2/23)

C	N	K	Y	G	E	M	P	V	D	K	A	K	A	P	L	R	E	L	L	148
CG	AG	CG	GG	C	AG	AG	AT	GG	CC	AG	AT	CT	CA	AC	CG	TAT	CC	AT	AC	660
R	E	R	A	E	K	M	G	Q	N	L	N	R	I	P	Y	K	D	T	F	168
.T	GG	AG	GG	AC	CC	CG	AC	TC	GG	CC	CG	AA	TG	GA	AC	CC	TG	AA	CA	720
W	K	G	T	T	R	T	R	P	R	N	G	T	L	N	K	H	S	G	I	188
G	ACT	T	CA	A	C	AG	CT	T	CC	T	G	AC	GA	AG	CT	CA	AC	GA	AT	780
D	F	K	Q	L	N	F	L	T	K	L	N	E	N	H	S	G	E	L	W	208
A	AG	GG	CC	GT	GC	AG	GC	AT	GC	AT	GC	AT	GC	AT	GC	AT	GC	AT	GC	840
K	G	R	W	Q	G	N	D	I	V	V	K	V	L	K	V	R	D	W	S	228
ACA	AG	GA	AG	AG	C	AG	CT	T	CA	AT	GA	AG	AT	GT	CC	CC	GG	CT	CA	900
T	R	K	S	R	D	F	N	E	C	P	R	L	R	I	F	S	H	P		248
A	AT	GT	CT	CC	C	AG	TG	CT	AG	CT	GC	CT	GC	CT	GC	CT	GC	CT	GC	960
N	V	L	P	V	L	G	A	C	Q	S	P	P	A	P	H	P	T	L	I	268
AC	AC	ACT	GG	AT	GC	CT	CC	CT	CT	CA	AT	GT	ACT	AT	GA	AG	GC	AC	CA	1020
T	H	W	M	P	Y	G	S	L	Y	N	V	L	H	E	G	T	N	F	V	288
GT	GG	ACC	AG	AG	CC	AG	GT	GT	GA	AG	TT	GT	CT	TT	GG	AC	AT	GG	CA	1080
V	D	Q	S	Q	A	V	K	F	A	L	D	M	A	R	G	M	A	F	L	308
C	A	C	A	C	T	A	G	CC	CC	AC	GC	AT	GC	ACT	CA	AT	AG	CC	GT	1140
H	T	L	E	P	L	I	P	R	H	A	L	N	S	R	S	V	M	I	D	328

Fig. 1a (continued on page 3/23)

GAGGACATGACTGCCCGAATTAGCATGGCTGATGTC AAGTTCTTCCAATGTCCCTGGT 1200
 E D M T A R I S M A D V K F S F Q C P G 348
 CGCATGTATGCACCTGCCCTGGGTAGCCCCCGAAGCTCTGCAGAGAAGCCTGAAGACACA 1260
 R M Y A P A W V A P E A L Q K K P E D T 368
 AACAGACGCTCAGCAGACATGTGGAGTTTTCAGTGTCTCTGTGGAACTGGTGACACGG 1320
 N R R S A D M W S F A V L L W E L V T R 388
 GAGGTACCCCTTTGCTGACCTCTCCAATATGGAGATTGGAATGAAGGTGGCATTTGGAAGGC 1380
 E V P F A D L S N M E I G M K V A L E G 408
 CTTGGCCTACCATCCACAGGTATTTCCCTCATGTGTGTAAGCTCATGAAGATCTGC 1440
 L R P T I P P G I S P H V C K L M K I C 428
 ATGAATGAAGACCCCTGCAAGCGACCCAAATTTGACATGATTGTGCCCTATCCTTGAGAAG 1500
 M N E D P A K R P K F D M I V P I L E K 448
 ATGCAGGACAAAGtaggactggaaaggtccttgccctgaactccagaggtgtcgggacatggt 1560
 M Q D K *

 tgggggaatgcacctccccaaagcagcaggcctctggttgccctccccgcctccagtcacat 1620
 ggtactaccacagcctggggtccatccccctcccccatccctaccactgtgcgcaagagg 1680
 ggcgggtcagagccttgtcacttgccacatgggtgtctccccacacatgggagggatcagcc 1740
 ccgcctgtcacataaagttattatgaaaaaataaaaaa
 1789

		I		II	
Csk		.NMKELKLLQ	TIGKGEFGDV	MLGDYRGN.K	VAVKCIKND
Yes		IPRESLRLEV	KLGGQCFGEV	WMGTWNGTTK	VAIKTLKPGT
Ctr1		IPWCDLNIKE	KIGAGSFGTV	HRAEWHGS.D	VAVKILMEQD
B-raf		IPDGGITVGQ	RIGSGSFGTV	YKKGWHG..D	VAVKMLNVTA
Ilk		IDFKQLNFLT	KLNENHSDEL	WKGRWQGN.D	IWKVLDKVR
		III		IV	
Csk		LAEASVMTQ	LRHSNLVQLL	GVIVEE.KGG	LYIVTEYMAK
Yes		..EAQIMKK	LRHDKLVPLY	AVVSEE...P	IYIVTEFMTK
Ctr1		LR EVAIMKR	LRHPNIVLFM	GAVTQPP..N	LSIVTEYLSR
B-raf		KNEVGVLRK	TRHVNILLFM	GYSTKP...Q	LAIVTQWCEG
Ilk		NEECPRRLRI	FSHPNVLPVL	GACQSPAPH	PTLITHWMPY
				V	
Csk					GSLVDYLRSR
Yes					GSLLDLKEG
Ctr1					GSLYRLLHKS
B-raf					SSLYHHLHII
Ilk					GSLYNVLHE.
				VIa	
Csk		GRSV.LGGDC	LLKFSLDVCE	AMEYLEGN..	NFVHRDLAA
Yes		EGKF.LKLPQ	LVDMAAQIAD	GMA YIERM..	.NYIHRDLRA
Ctr1		GAREQLDERR	RLSMAYDVAK	GMNYLH.NRN	PPIVHRDLKS
B-raf		ETKFEMI..K	LIDARQTAQ	GMDYLHAK..	.SIIHRDLKS
Ilk		GTNFVVDQSQ	AVKFALDMAR	GMAFLH.TLE	PLIPRHALNS
				VIb	
Csk					RNVLS.E
Yes					ANILVG.D
Ctr1					PNLLV.DK
B-raf					NNIFLH.E
Ilk					RSVMI.DE

235

283

329

Fig. 1b (continued on page 5/23)

VII

Csk	DNVAKVSDFG	LTK.....EA	SSTQDTGKLP	VKWT APEALR	... EKKFSTK
Yes	NLVCKIADFG	LARLIED.NE	YTARQ AKFP	IKWT APEAAL	...YGRFTIK
Ctrl	KYTVKVCDFG	LSRLKAS.TF	LSSKSAAGTP	.EWM APEVLR	...DEPSNEK
B-raf	DLTVKIGDFG	LATVKSRSWG	SHQFEQLSGS	ILW APEVIR	MQDKNPYSFQ
Ilk	DMTARIS...	MADV KFSFQC	PGRM.YA..P	.AW VAP EALQ	KKPEDTNRSS

372

IX

Csk	SDVWSFGILL	WEIYSFGRVP	YPRIPDK.V	VPRVEKGY..	KMDAPDGC PP
Yes	SDVWSFGILL	TELVT KGRVP	YPGMV NRE .V	LEQ VERGY ..	RMPC PQGCPE
Ctrl	SDVYSFGVIL	WELAT.LQQP	WGNL.NPAQV	VAAVGF KCK .	RLE IPRNLNP
B-raf	SDVYAFGIVL	YELMT.GQLP	YSNINN RDQI	IFMVGR GYLS	PDLSK VRSNC
Ilk	ADMWSFAVLL	WELVTR.EVP	FADLSN MEIG	MK.VA LEGL .	R.T IPPGISP

418

XI

Csk	AVYEV MKN	CWHLDA MRP	SFLQ REQLE	HIK THEL
Yes	SLHE LMKL	CWKKDP DERP	TFEY IQSFLE
Ctrl	QVA AIIEG	CWTNEP WKR P	SFAT IMDLLR	PL.....
B-raf	PKAMKRL MAECL	KKK RDERP	LFPQ ILASIE	LLAR SLP
Ilk	HVCK LMKI	CMNED PAKRP	KFDM IVPILE	KMQD K..

451

Fig. 1b

ANKYRIN	-G-TPLH-AA--GH---V---LL--GA---N----	
CONSENSUS	A	D
ANK1	³³ HGFSPLHWACREGRSVVEMLIMRGARINVMNR	
ANK2	GDDTPLHLAASHGHRDIVQKLLQYKADINAVNE	
ANK3	HGNVPLHYACFWGQDQVAEDLVANGALVSICNK	
ANK4	YGEMPVDKAKAPLRELLRERAEKMGQNLNRI PY ¹⁶⁴	

Fig. 1c

Figure 1 is a Northern blot analysis showing the expression of ILK mRNA in various tissues. The tissues analyzed are Heart, Brain, Placenta, Lung, Liver, Skeletal Muscle, Kidney, and Pancreas. The blot shows a single band for ILK mRNA in each tissue, with the most intense bands observed in Heart, Skeletal Muscle, and Pancreas. A molecular weight marker is indicated on the left, with values 9.5, 7.5, 4.4, 2.4, and 1.35 kb. An arrow on the right points to the ILK band.

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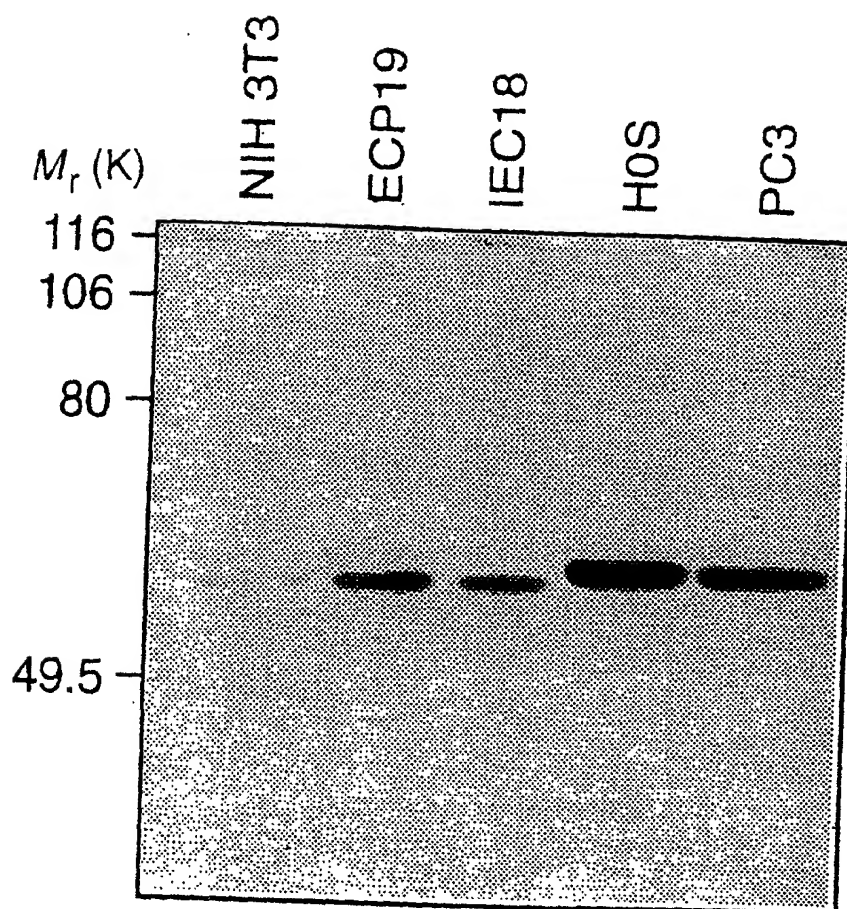


Fig. 1e

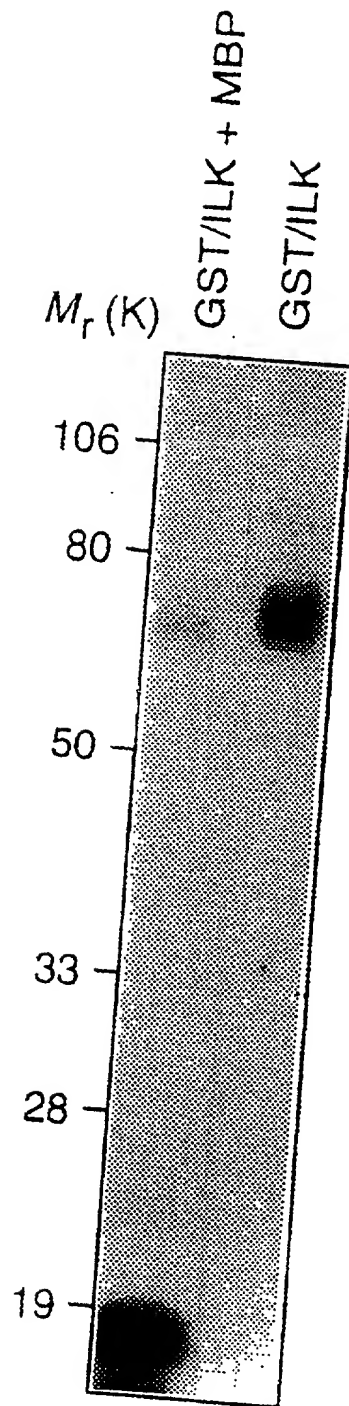


Fig. 2a

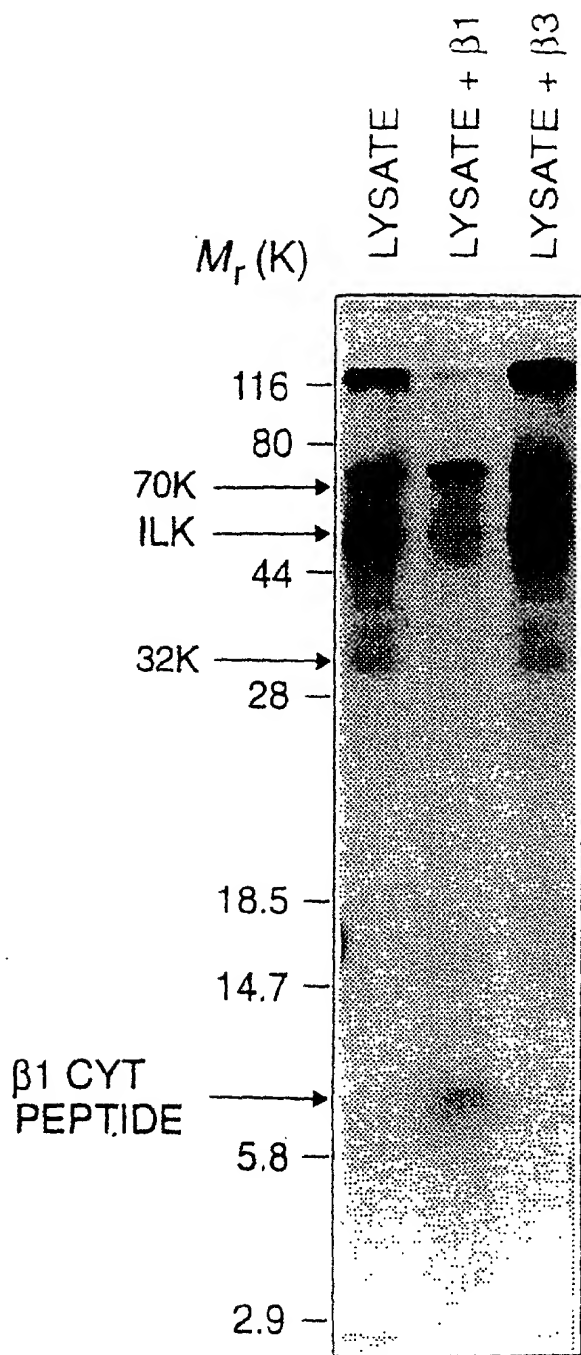
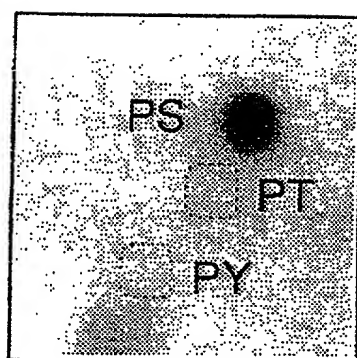
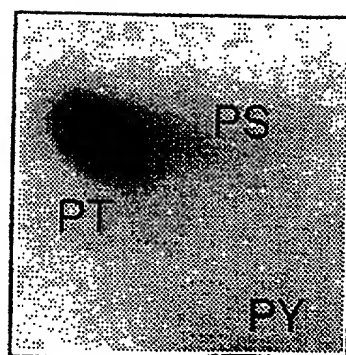


Fig. 2b

ILK



MBP



β_1 CYT

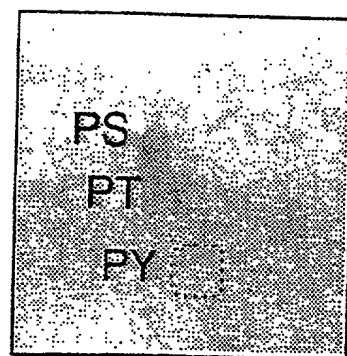


Fig. 2c

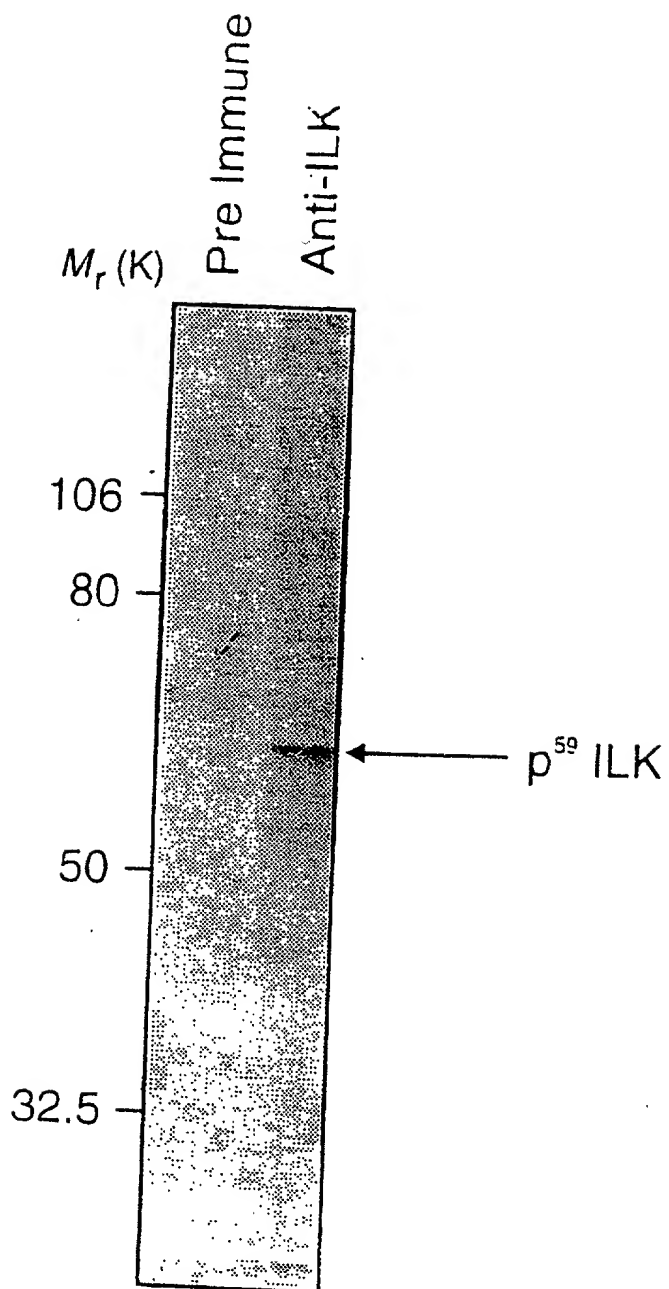


Fig. 3a

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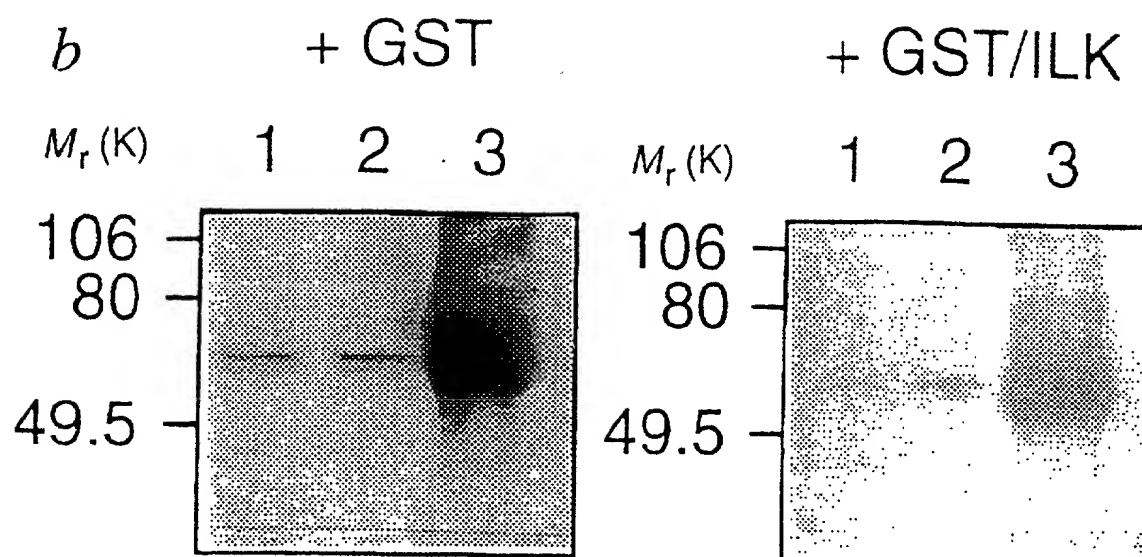


Fig. 3b

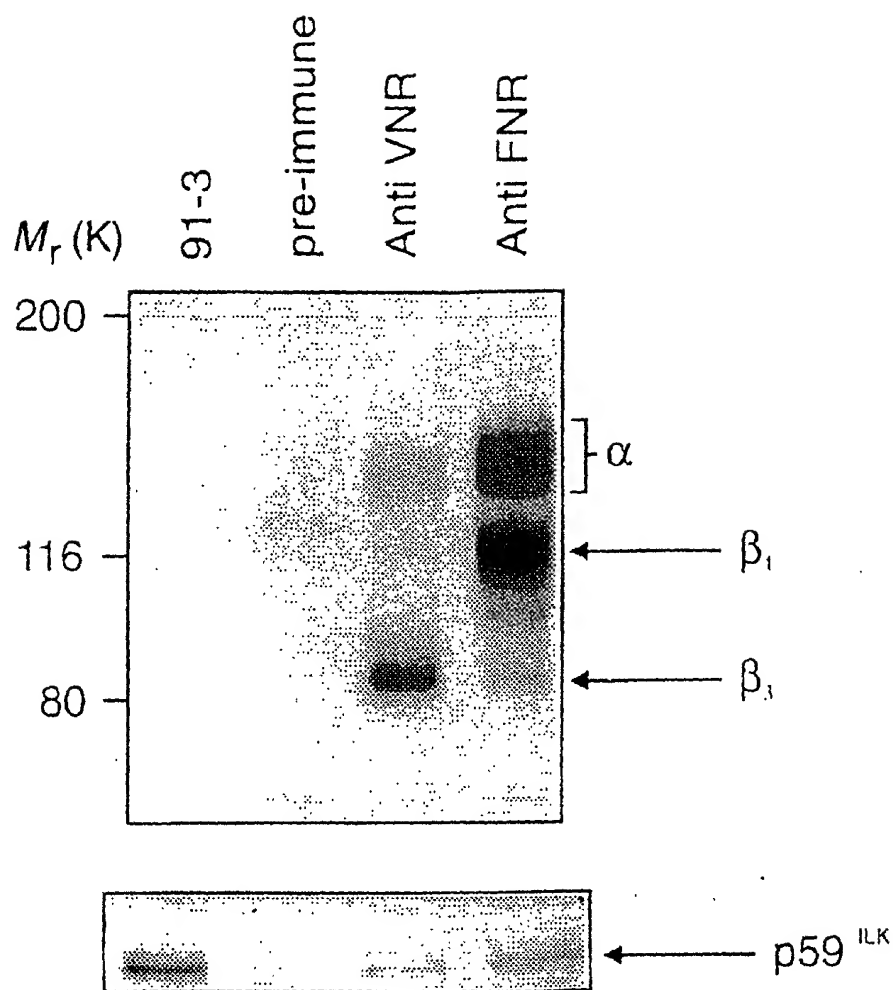


Fig. 3c

Immunoprecipitation: anti $\beta 1$ monoclonal antibodies

Immunoblot: anti-ILK adsorbed anti-ILK

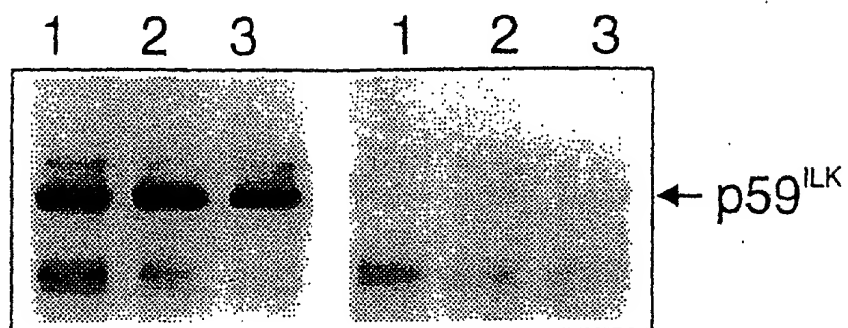


Fig. 3d

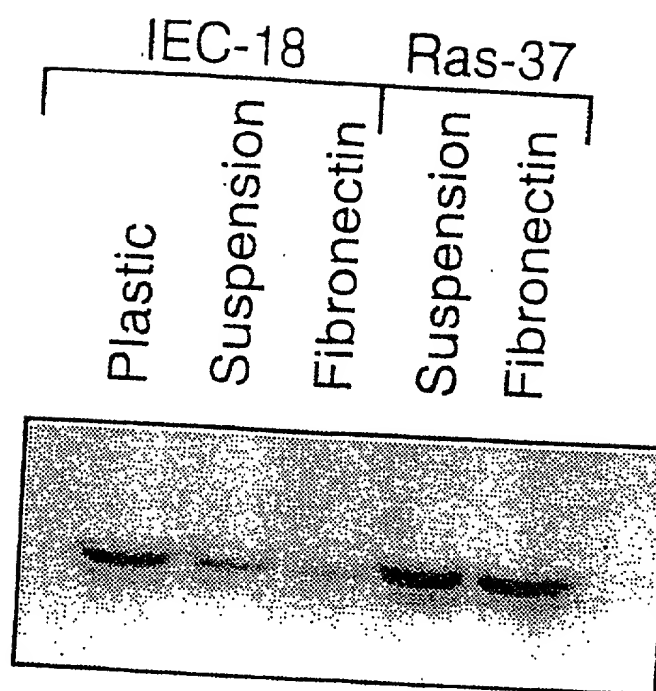


Fig. 4a

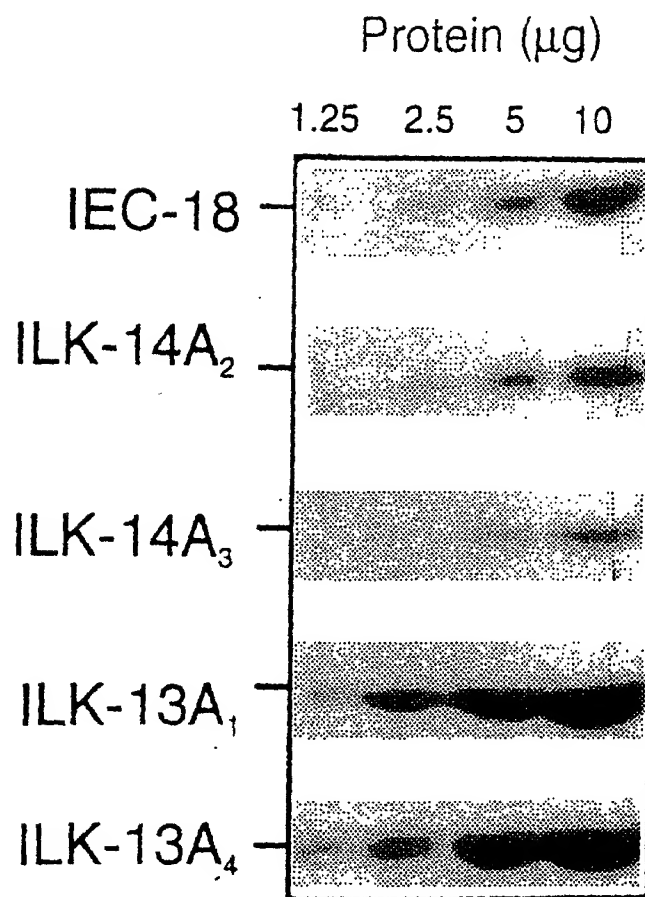


Fig. 4b

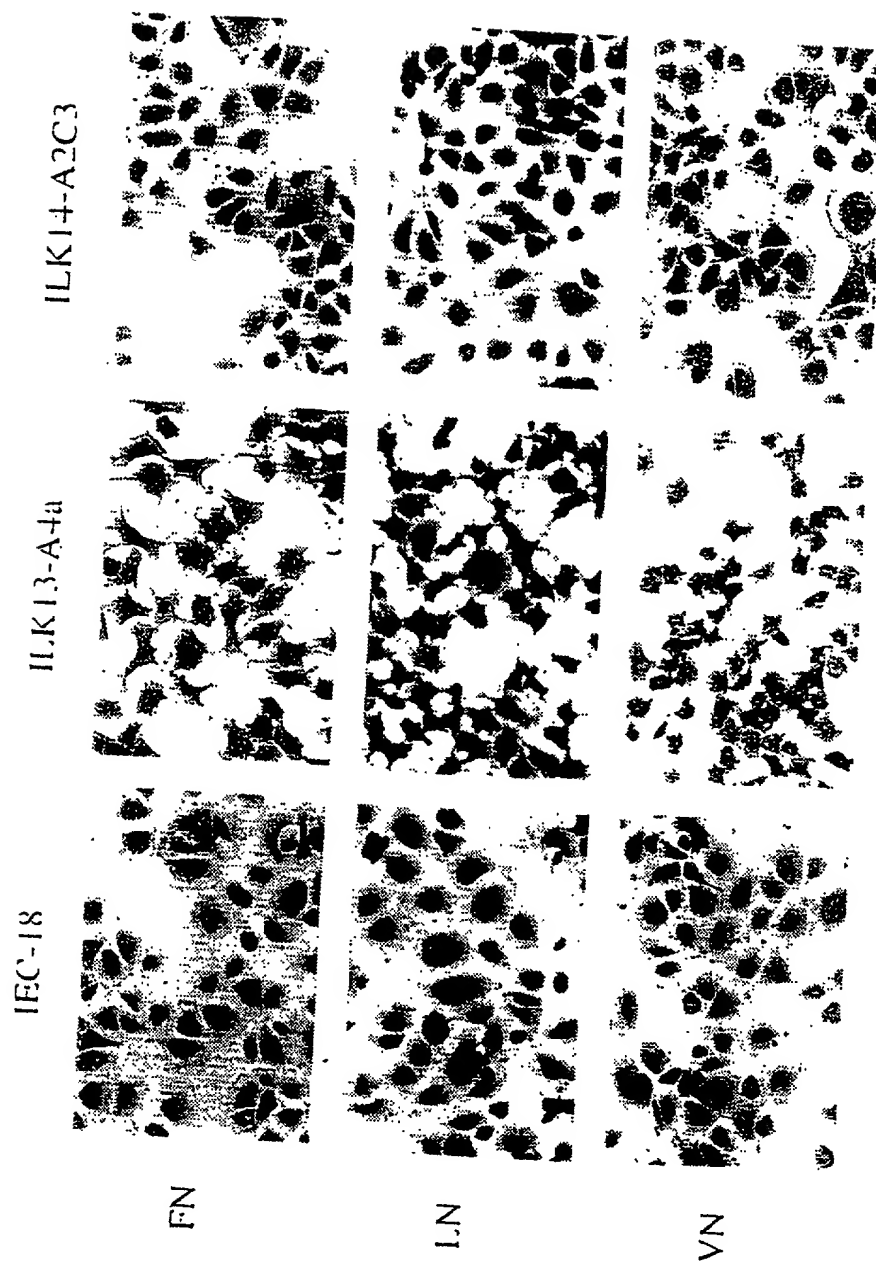


Fig. 4c

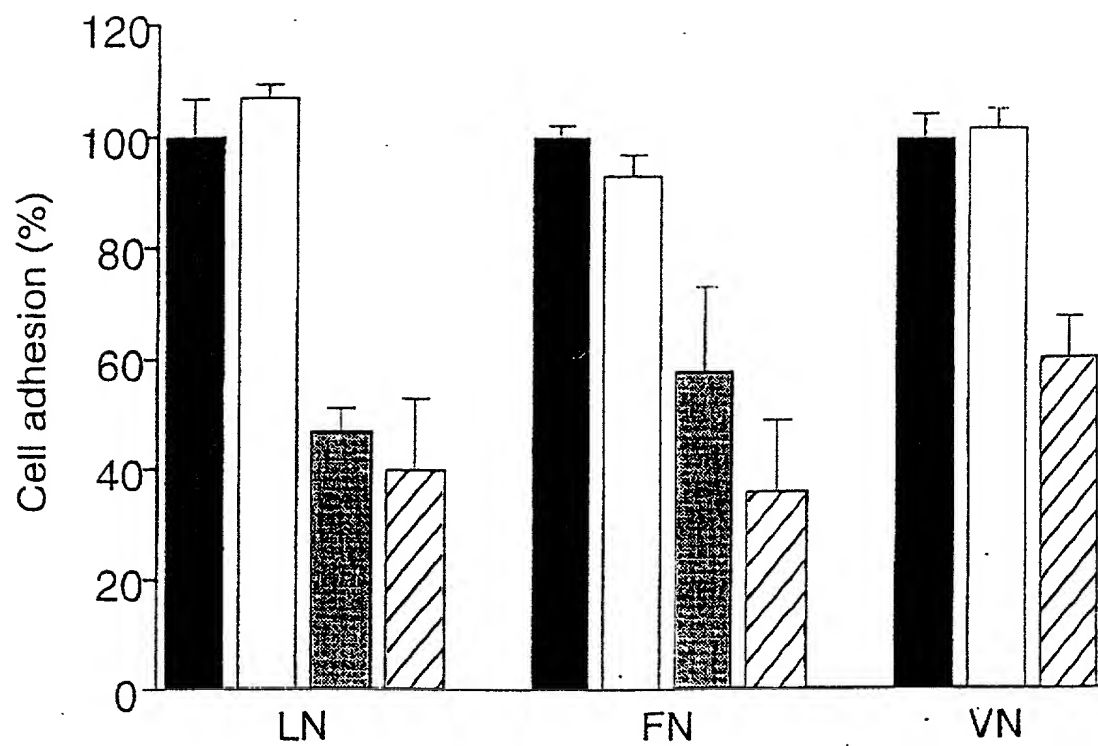


Fig. 4d

Experiment 1

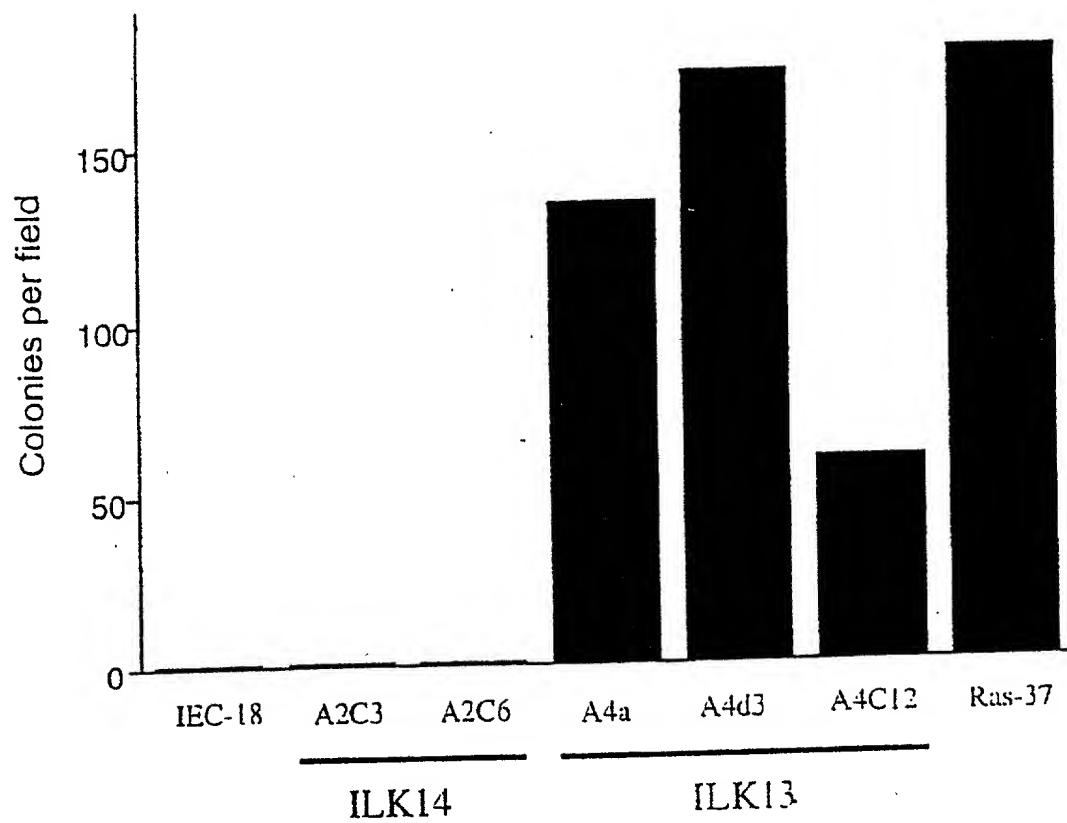


Fig. 4e (continued on page 21/23)

Experiment 2

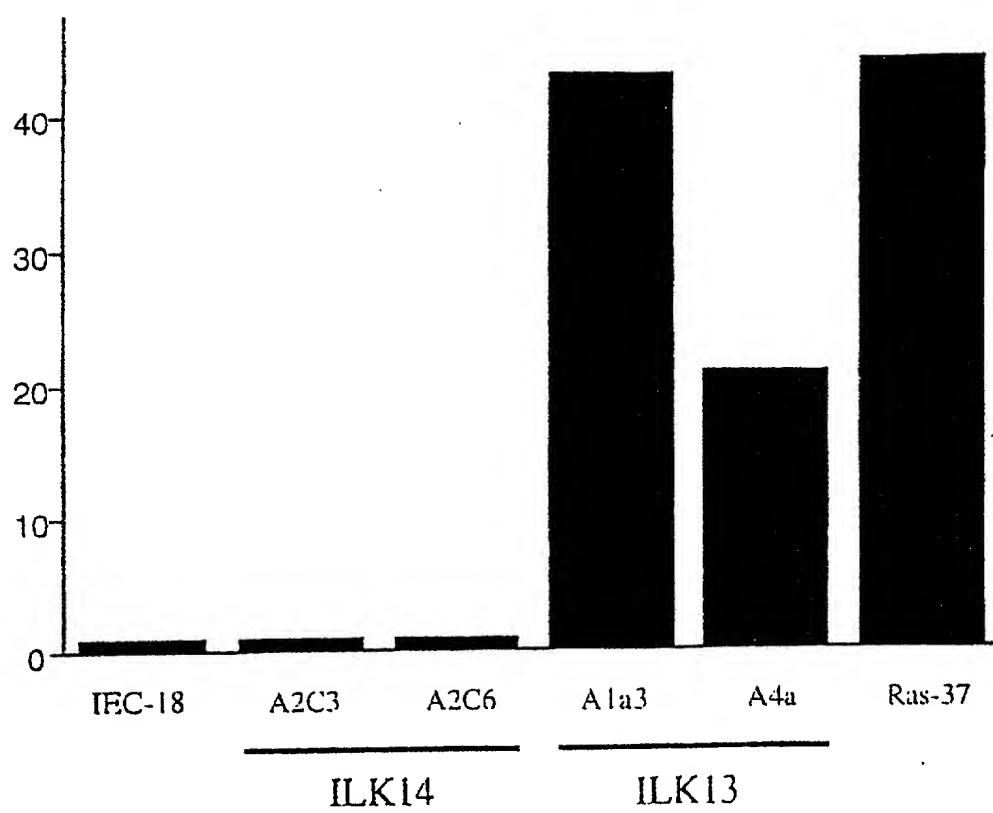


Fig. 4e

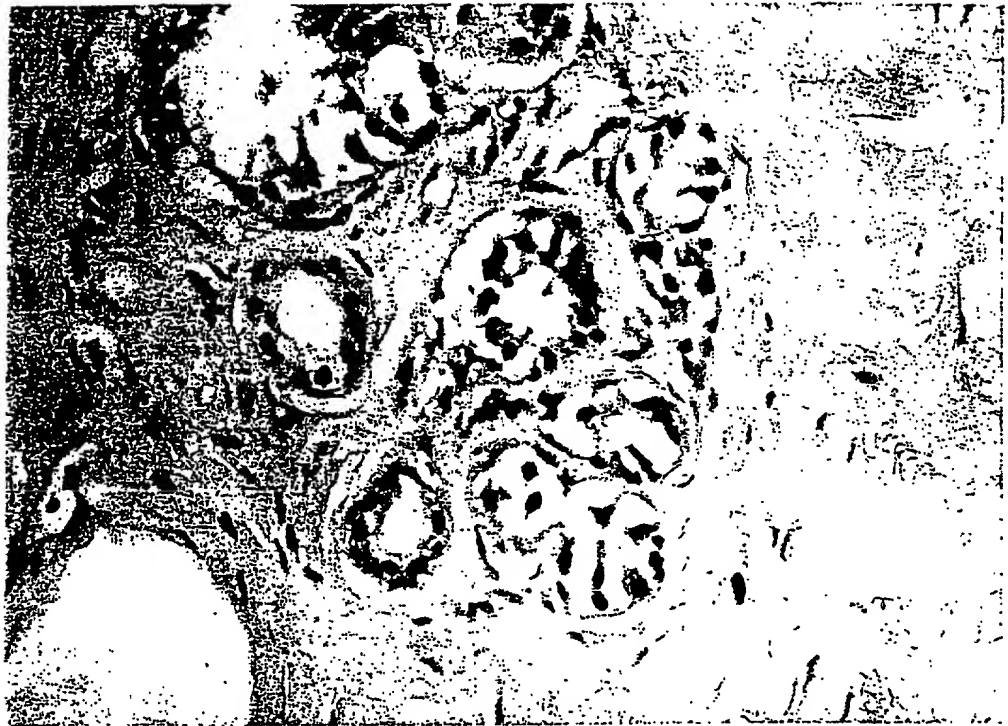


Fig. 5a

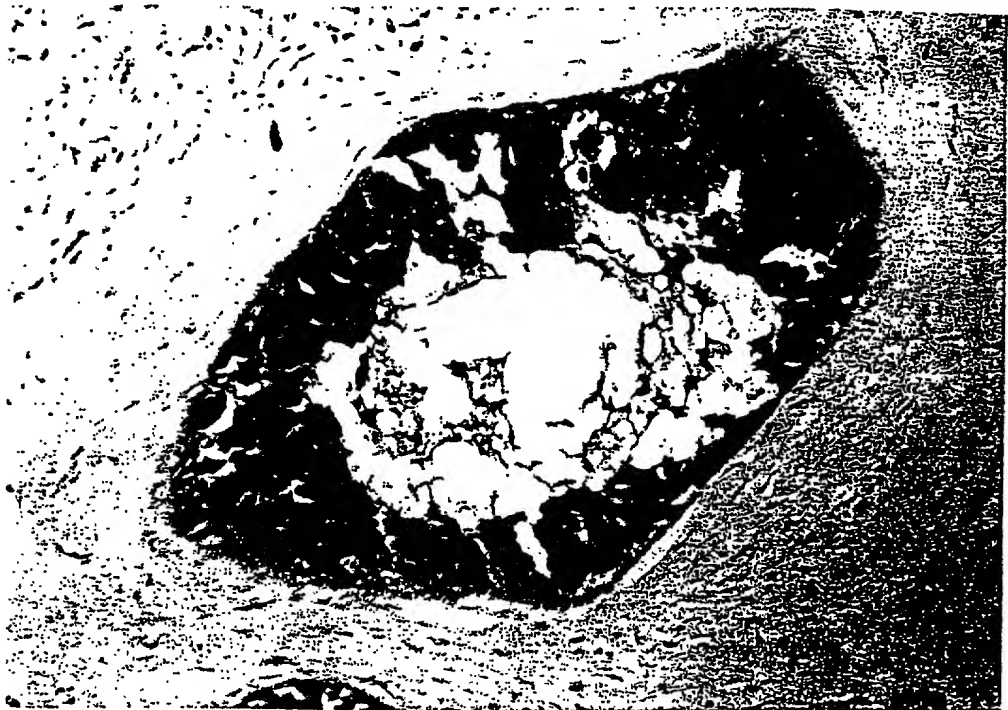


Fig. 5b



Fig. 5c

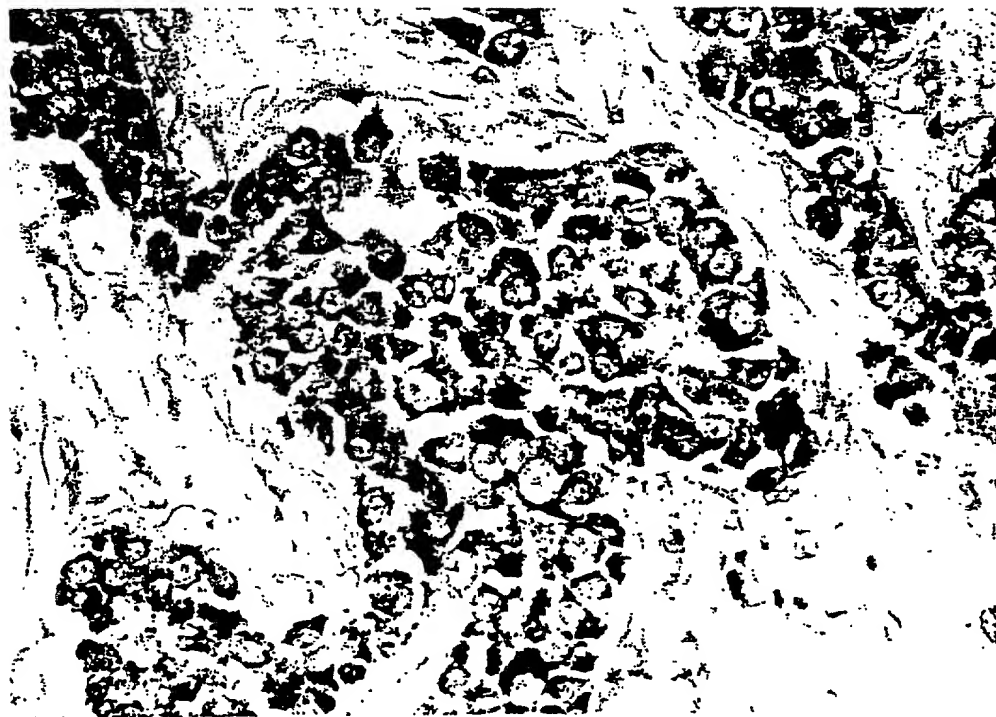


Fig. 5d